

## REMARKS

Claim 5 currently remains in the application. Claims 1-3 and 6-9 have been canceled, claim 4 has been withdrawn, and claim 5 is herein amended.

Claim 5 was rejected under 35 U.S.C. 103 over Waki in view of Ronay. At least in part in view of these cited references and the Examiner's reasons for rejection, claim 5 is herein amended to incorporate further limitations as to the average diameters of the mother particles and the abrading particles. These additional limitations are clearly supported by the specification and hence should be deemed enterable.

Waki was cited evidently for describing a lapping method in which a lapping fluid is used in combination with a lapping plate of a metallic material (column 1, lines 40-52). The lapping fluid is said to contain abrading particles with average diameter of  $10\mu\text{m}$  (column 5, lines 66-67). Thus, not only the target object but also the surface of the lapping plate becomes abraded during the lapping operation. Although the surface of the lapping plate may appear to be flat macroscopically, as shown in Fig. 10, it becomes uneven as shown in Figs. 6-8 and this is why a step of using the correction ring 64 or the like becomes necessary, as explained in column 6, lines 7-14.

According to amended claim 5, by contrast, not only abrading particles but also relatively larger mother particles are directly supplied to the surface of the lapping plate and they function like a pad to correct the unevenness of the surface. Moreover, claim 5 now says that very small abrading particles (with average diameter of  $1 - 20\mu\text{m}$ ) are used. This is why the step of using the likes of a correcting ring is obviated according to the present invention.

It is additionally to be noted, as well understood by persons skilled in the art, that if the step of using the likes of a correcting ring is carried out, debris particles originating from the lapping plate are additionally generated and they tend to scratch and damage the surface of the target object being polished. By a method as described in amended claim 5, by contrast, such debris particles are conveniently taken into the space between the polymer particles (as described in page 4 at lines 11-12) such that the target object to be polished is not scratched or damaged thereby. In other words, there is no need to incorporate the step of using the likes of a correcting ring into the method as described in amended claim 5.

It is further to be noted that the method according to amended claim 5 is characterized as using two different kinds of particles, one kind for lapping and the other kind for

polishing. Ronay was cited evidently for describing a polishing step (column 7 at lines 42-45, from column 7 at line 59 to column 8 at line 5, and Fig. 3). Although Ronay's slurry may appear to be similar to the polishing fluid of Waki, Ronay does not say anything about directly applying this slurry to the surface of a lapping plate. It is further to be noted that although the polishing process is normally to be carried out for finishing the target object after the lapping process, there is no need (or necessity) to use Ronay's slurry for a polishing process in the lapping process according to Waki. Neither is there any necessity of using the lapping plate of Waki for a lapping process in the polishing process of Ronay which is different from the ordinary polishing only in that the composition of the slurry is modified.

In summary, it has not been done prior to the present invention to combine a slurry for polishing and a hard lapping plate for a lapping process. There has never been any teaching of such a combination. It is therefore to be concluded that amended claim 5 is not obvious even in the presence of the cited references.

It is therefore requested that the present application be allowed at an early date.

Respectfully submitted,



Keiichi Nishimura  
Registration No. 29,093

May 1, 2006  
BEYER WEAVER & THOMAS, LLP  
Telephone: (510) 663-1100  
Telefax: (510) 663-0920